

# Symposium 50 Years Jubilee International Commission for the Hydrology of the Rhine Basin

## History and Lessons Learned

by

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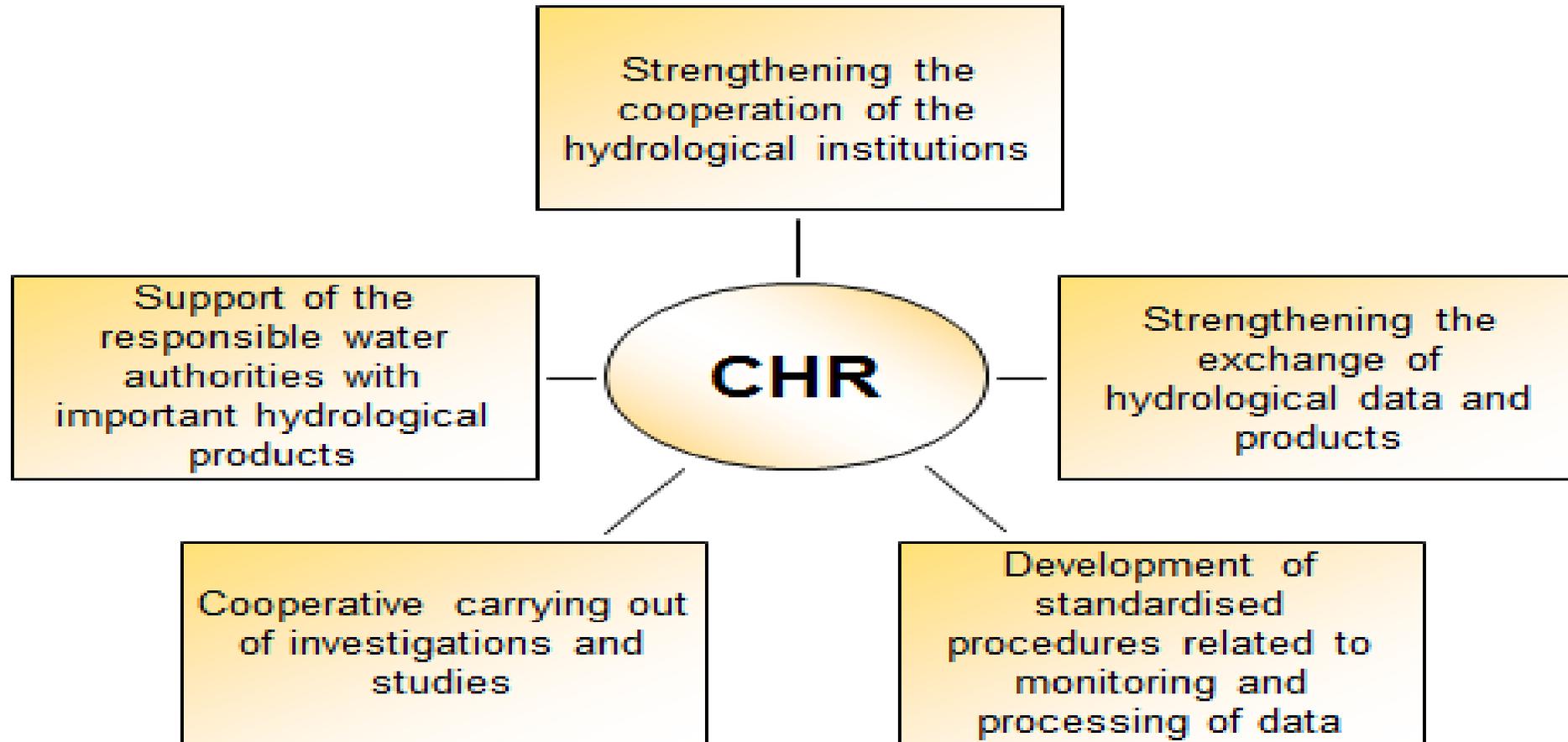
# Brief History and Tasks of the CHR

- Founded 1970 in the framework of the UNESCO's International Hydrological Decade with member states Switzerland, Austria, Germany, France, Luxembourg and The Netherlands.
- Later CHR was incorporated as a foundation which is registered in The Netherlands



- 1970 – 78 Set-up of an inventory in the form of a Rhine Monography  
1975 – 90 During a consolidation phase various projects have been carried-out

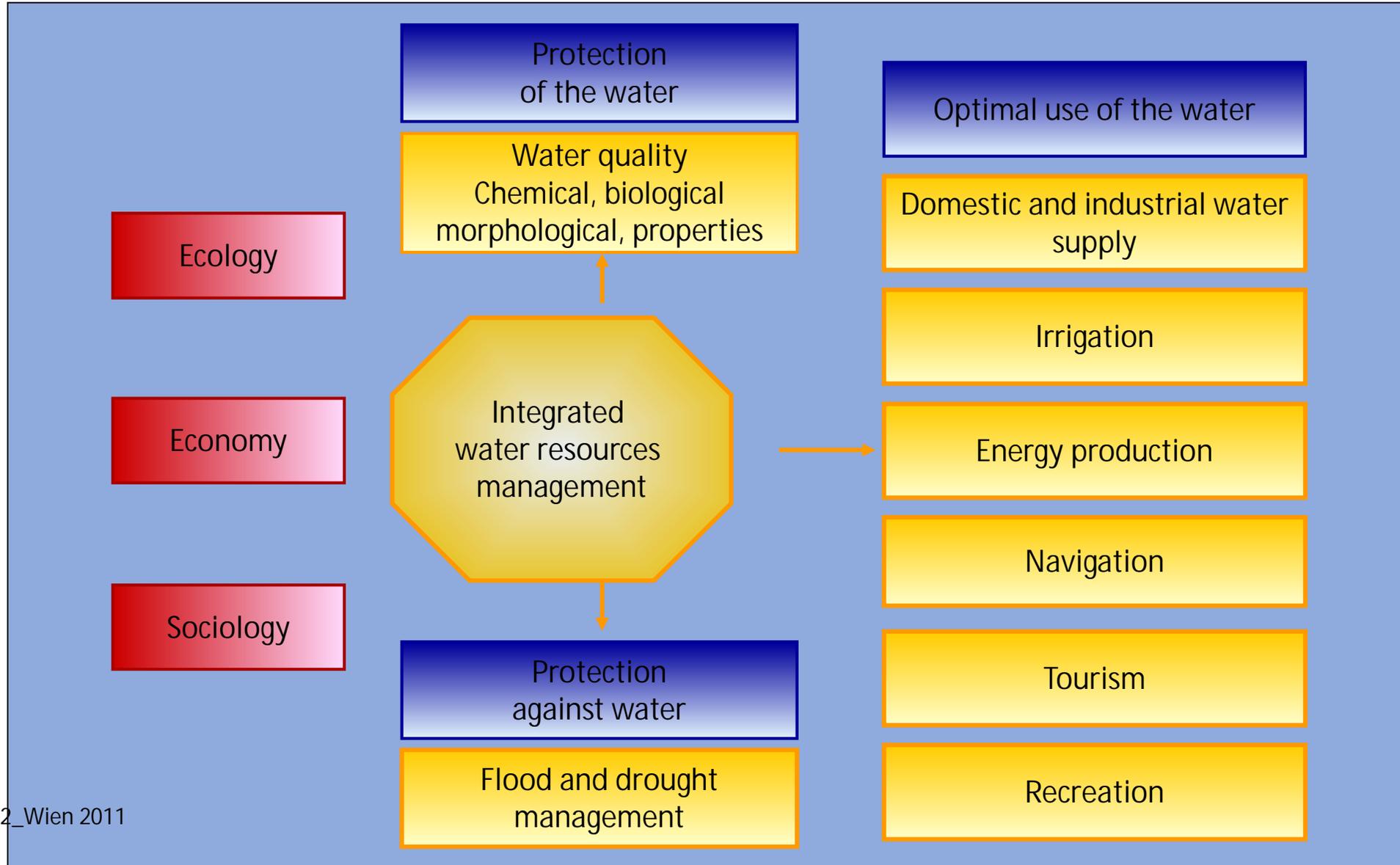
## Tasks



1999 A new strategy of CHR has been set-up with the components:

- 1) Initiates and compiles hydrological studies
- 2) Supports the implementation of hydrological studies
- 3) Makes a concious effort to optimize the use of scientific resources, e.g. by cooperation with other stakeholders in the field of water

# Main goal of cooperation was the support of Integrated Water Resources Management procedures and activities



# Cooperation with UN Organizations

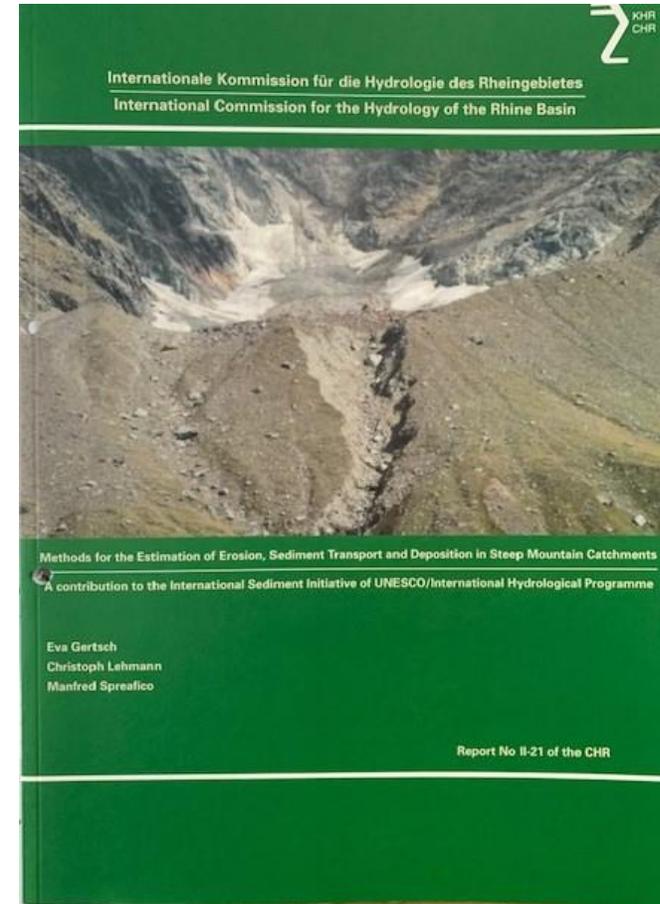
Mainly with

CHR–UNESCO/International Hydrological Program (IHP)

CHR-Operational Hydrological Program of WMO (OHP)

Activities:

- . Cooperation in the field of erosion and sediment
- Common publications and conferences
  - E.g. Methods for the estimation of erosion, sediment transport and deposition in steep mountain catchments
- Information exchange
- Participation of IHP and OHP representatives as guests at Assembly meetings of CHR



# Cooperation with Organizations in the Rhine Basin

## Int. Commission for the Protection of the Rhine

- Project of the inventory in the areas of flood alarm service and flow forecasting in the Rhine
- Project Study of the impacts of climate change on hydrological regimes and water resources management

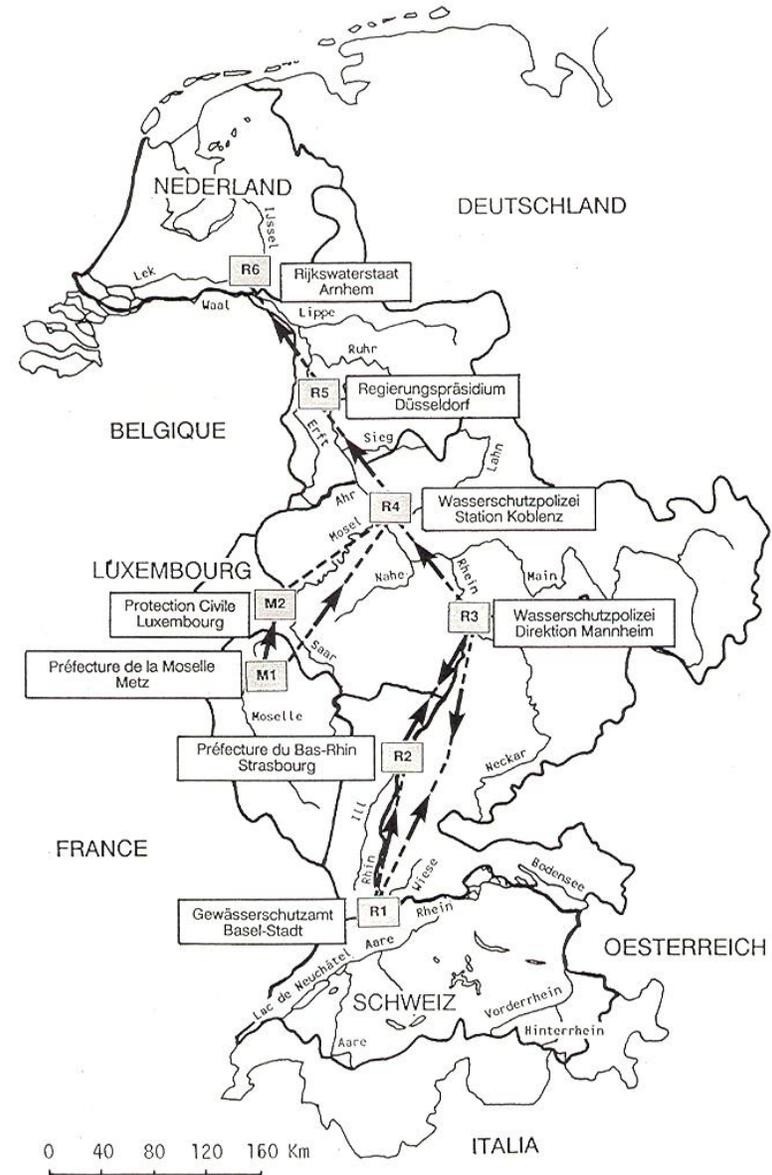


# Int. Commission for the protection of the Rhine

Alarm model for pollution transport in the Rhine River by spill of harmful substances

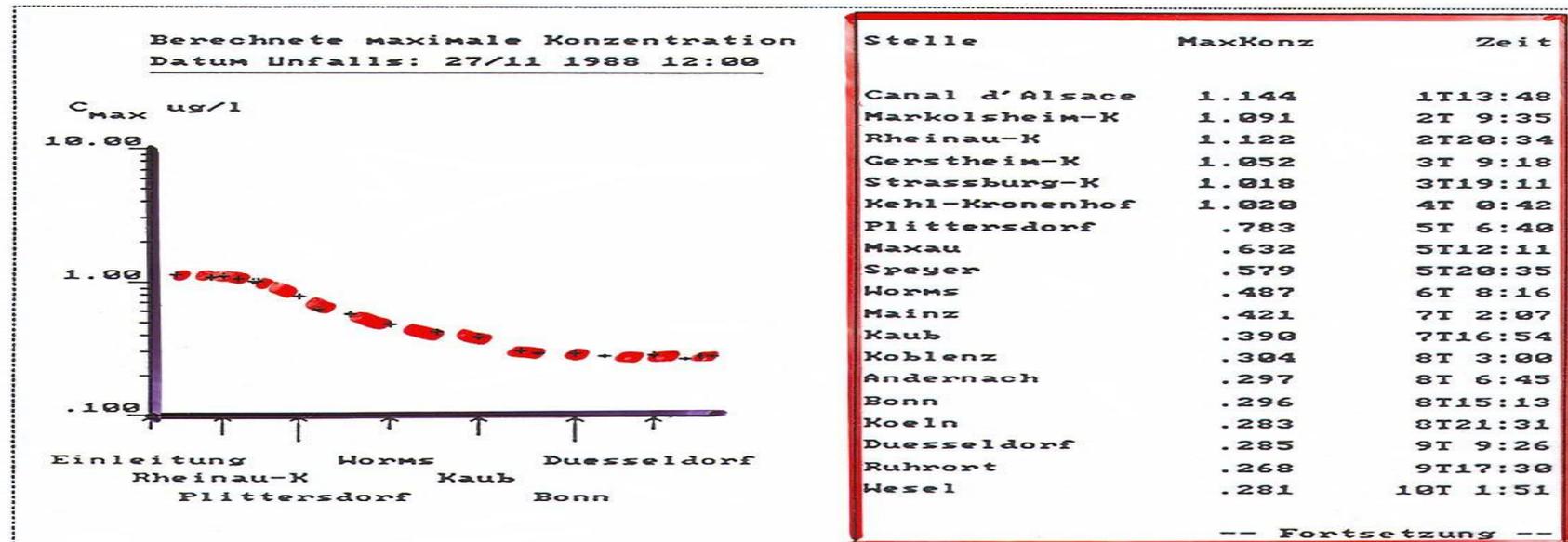
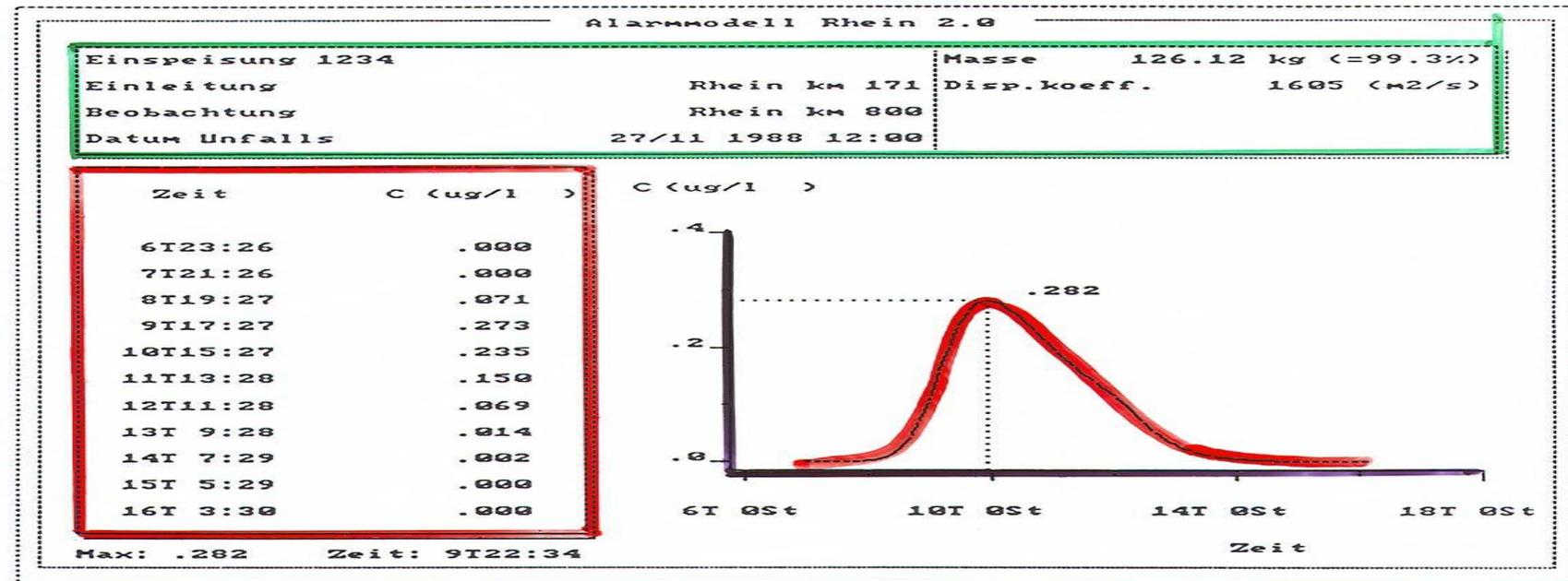
CHR has made the

- Development
- Tests and calibration
- Provision to the responsible authorities in the Rhine river
- Helped by the implementation



Result: Reliable forecast of transport times and concentration dispersion along the Rhine River

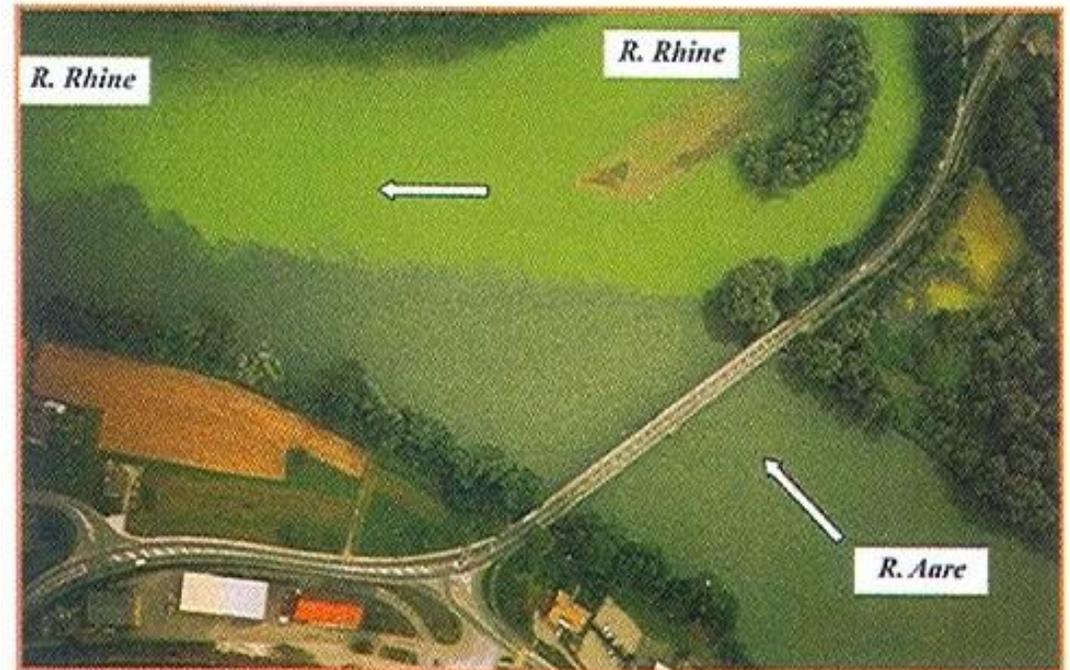
# Alarm Model Rhine



# Cooperation with Organizations in the Rhine Basin

## Tracer experiments with fluorescence tracers were needed for the development of the alarm model

- 1) Determination of transport parameters
  - Dispersion
  - Flow times
- 2) Calibration of the models
- 3) Verification of the models



Tracer experiments in the confluence of Aare and Rhein

# Cooperation with other organizations in the Rhine Basin

- Central Commission for Navigation on the Rhine River
- Int. Commission for the Protection of the Mosel and Saar
- Int. Association of Water Treatment Plants in the Rhine
- Int. Commission for the Protection of Lake Constance
- Scientific and administrative institutions, universities



# Cooperation with other transboundary commissions

Rio Bermejo/Grande de Tarija Commission, La Plata River Basin

Cooperation Agreement between CHR and Binational Commission for the Development of the Upper Bermejo River and Grande de Tarija River Basins, 2005



# Representatives of the CHR have studied the sediment processes in the Bermejo River



# Cooperation with other transboundary commissions

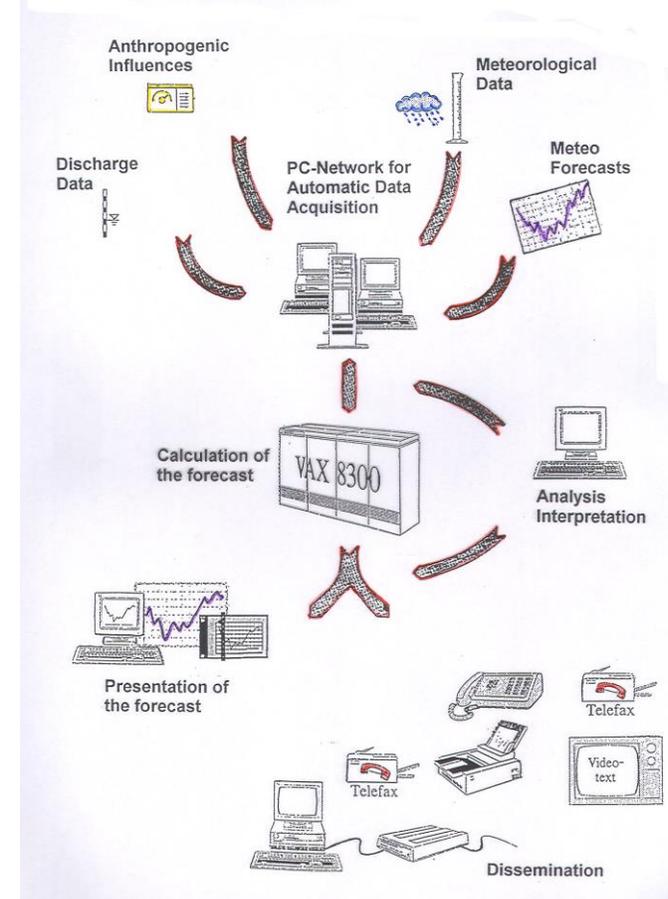
Mekong River Commission

Together with BfG we organized a

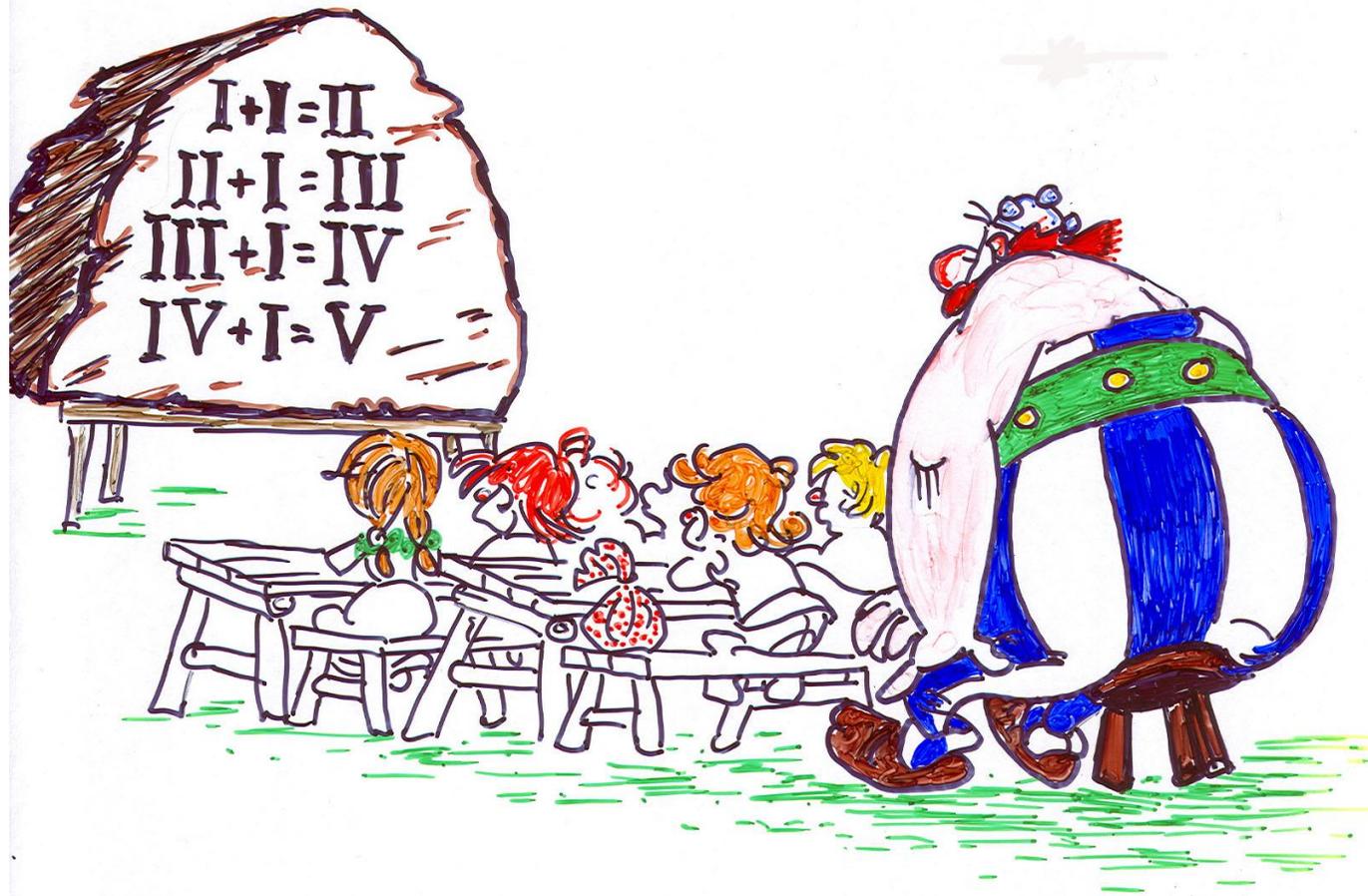
Rhein-Mekong Symposium in  
Coblenz «Climate Change and its  
Influence on Water and Related  
Sectors», 2014

Transfer of knowledge in Water  
Pollution Control Strategy and Flood  
Risk Management

Promoting exchange of hydrological  
data and information



# Experiences and Lessons Learned



# CHR is a flexible, scientific and research oriented commission

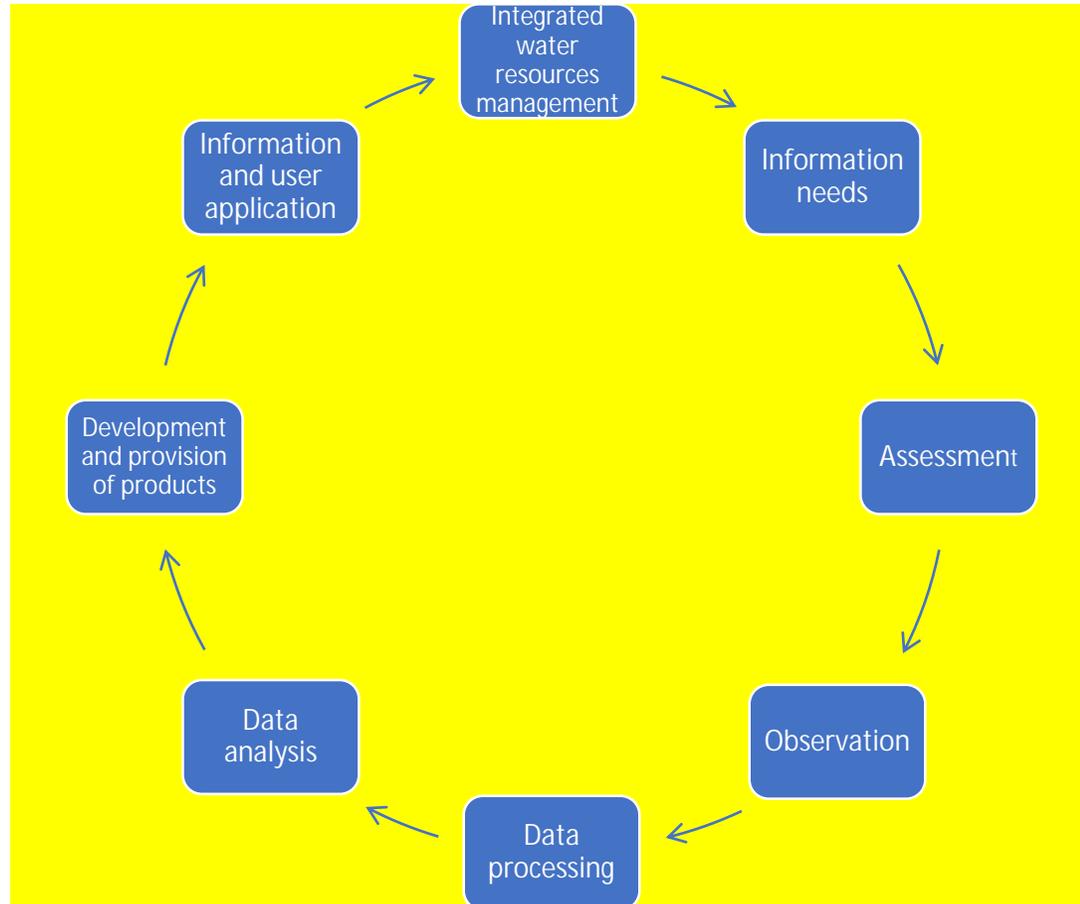
- In my point of view decision making was a little bit easier than that one in highly politic depended commission. The assembly could more or less select its activities.

But it was necessary:

- To find Win-Win Situations for the stakeholders
- To take care of cost effectiveness
- To keep balance between economic, ecologic and social/political considerations.



# Hydrology is a very important tool to support IWRM. CHR was/is active in the provision-cycle of data and products



Mainly by:

- Supporting the exchange of hydrological data and products
- Development of standardised procedures
- Cooperative carrying-out of monitoring and studies
- Provision of sophisticated products to all stakeholders

Selection of the projects must be based on the needs of the participating countries and on UN goals and benefits of cooperation should be kept in mind. Namely

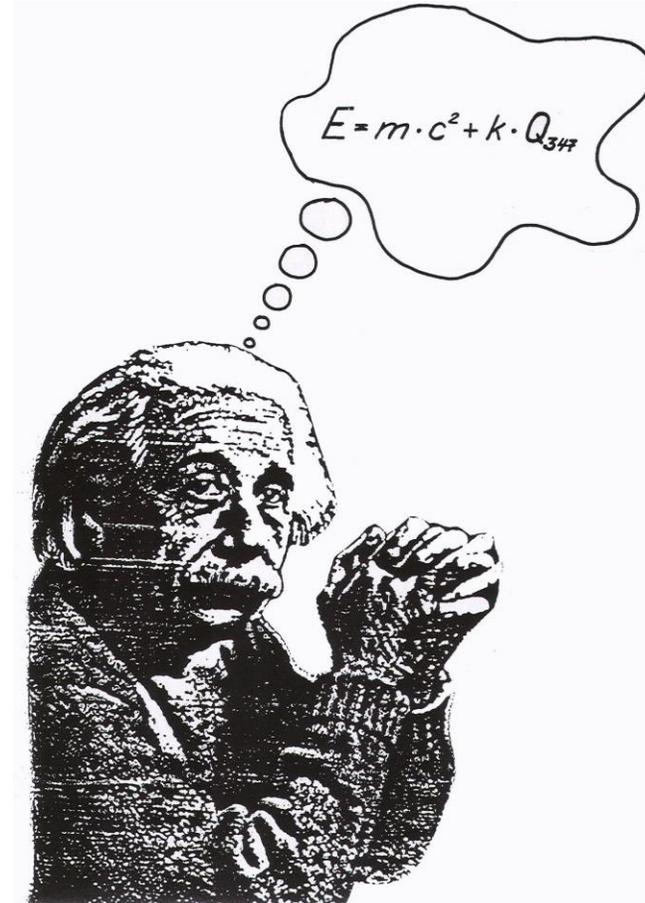
Supporting the sustainable optimal use of the water resources.

Securing the environmentally sound management of the water.

Strengthening of integrated flood and low flow management.

Strengthening of sustainable development

Support of security



# Need for intensive cooperation with riparian and other international institutions

- Cooperation is a must and a strength of CHR
- Cooperation requires patience, persistence and realism as well as linking water reforms to broader political and economic reforms.
- Stakeholders must be integrated in the decision making process and public awareness programs.



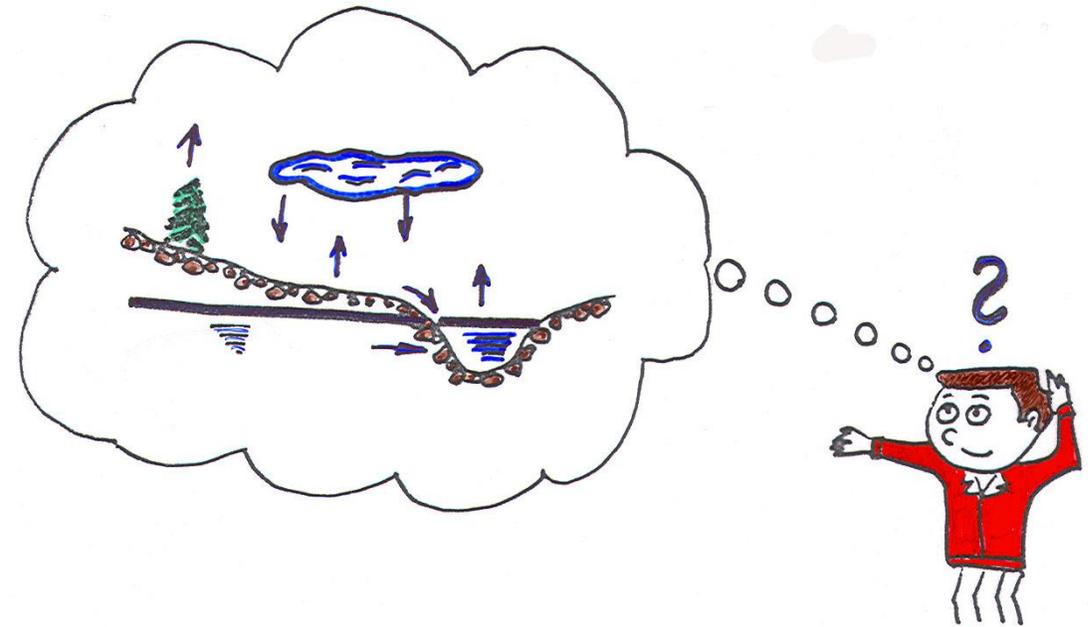
# Finally Some Impressions and Companionship

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Extreme flows

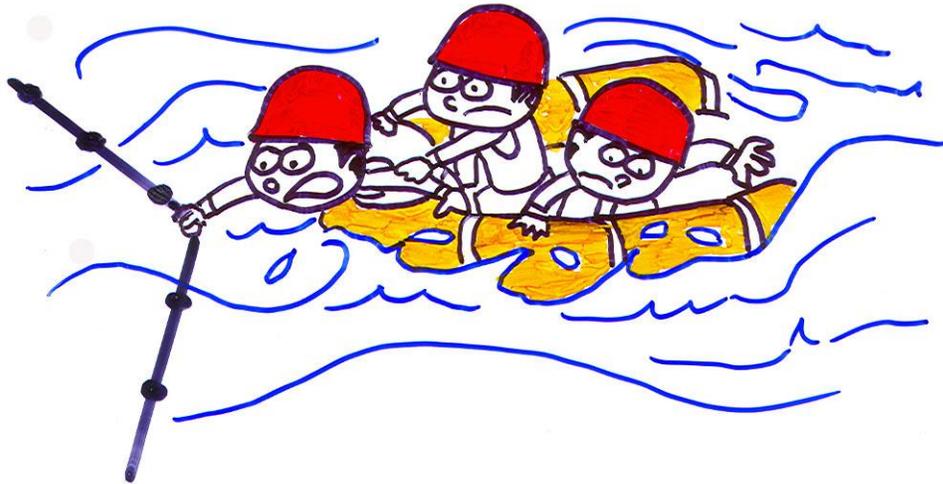


Water balance



# Some impressions

Solving difficult problems together



The scientific secretary has cooked an excellent soup for CHR



The members of the National Representatives Assembly have worked not only in the meeting rooms, but they also studied the problems in nature



After a long working day the assembly members could enjoy the evening



# Special CHR Meeting on Terschelling Island



Hydrological studies in Terschelling by the members with the help of bicycles, the only transport facilities on the island



**A successful commission needs a good organised secretariat and an excellent scientific secretary**



# CHR

- C** Collective Cooperation
- H** Hydrological Help
- R** Rational Results

